

CLAIMS

Having thus described the aforementioned invention, we claim:

1. An apparatus for training an animal in which an audible and a variable level electrical stimulation is applied to the animal, said apparatus
5 comprising:

a transmitting unit sending a coded signal having an identification code, a stimulation type code, and a stimulation level code, said stimulation type code including a beep code and a shock code;

a receiver responsive to said coded signal from said transmitting unit;

10 a processor for decoding said coded signal;

a speaker producing a beep in response to said beep code, said speaker controlled by said processor;

a switch controlled by said processor in response to said shock code, said processor controlling a pulse stream applied to said switch, said pulse stream
15 having a voltage level related to a value of said stimulation level code;

a transformer electrically connected to said switch, said transformer producing a stimulation pulse stream having a pulse voltage directly to said voltage level applied to said switch; and

20 at least one electrode electrically connected to said transformer and located proximal the animal;

whereby said animal is stimulated by said electrode when said electrode is energized by said transformer.

2. The apparatus of Claim 1 wherein said pulse stream has a fixed pulse width, a fixed pulse frequency, and a variable amplitude.

3. The apparatus of Claim 1 wherein said processor has a plurality of output connections that connect to a plurality of resistors that form a voltage divider network connected to said switch.

4. The apparatus of Claim 1 wherein said processor monitors said receiver for said coded signal, verifies said identification code, determines whether a beep is to be generated, determines whether a shock is to be generated, and generates control signals for a specified voltage level.

5. The apparatus of Claim 1 wherein said transmitting unit includes a beep switch, a shock switch, and a stimulation level switch.

6. An apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a processor that monitors for a coded signal, verifies an identification code in said coded signal, determines whether an electrical stimulation is to be generated, and generates control signals for a specified voltage level;

a switch controlled by said processor, said processor controlling a voltage level applied to said switch;

a transformer electrically connected to said switch, said transformer producing a pulse having a pulse voltage directly related to said voltage level applied to said switch; and

at least one electrode electrically connected to said transformer and located proximal the animal;

whereby said animal is stimulated by said electrode when said electrode is energized by said transformer.

7. The apparatus of Claim 6 wherein said processor determines whether a beep is to be generated and further including a speaker producing a beep, said speaker controlled by said processor.

8. An apparatus for training an animal in which a variable level
5 electrical stimulation is applied to the animal, said apparatus comprising:

a processor that monitors said receiver for a coded signal, verifies an identification code in said coded signal, determines whether an electrical stimulation is to be generated, and generates control signals for a specified stimulation level; and

10 a means for producing an electrical stimulation based on an output of said processor.

9. The apparatus of Claim 8 wherein said means for producing said electrical stimulation includes producing a stream of pulses having a fixed pulse width, a fixed frequency, and a voltage level related to said specified stimulation
15 level.

10. The apparatus of Claim 8 wherein said processor determines whether a beep is to be generated and further including a speaker producing a beep and further including a means for producing a beep.

11. An apparatus for training an animal in which a variable level
20 electrical stimulation is applied to the animal, said apparatus comprising:

means for receiving a coded signal;

means for decoding said coded signal; and

a means for producing an electrical stimulation based on said coded signal.

12. The apparatus of Claim 11 wherein said means for producing said electrical stimulation includes producing a stream of pulses having a fixed pulse width and frequency and a voltage level related to said specified stimulation level.

13. The apparatus of Claim 11 further including a means for producing a
5 beep.

14. In an apparatus for training an animal in which audible and variable level electrical stimulation is applied to the animal, a memory medium comprising software programmed to provide for controlling the stimulation applied to the animal by a process comprising:

10 a) receiving an electronic signal representing a request message to stimulate the animal, said request message including an identification code and a stimulation level code;

b) determining whether an electrical stimulation is to be generated to stimulate the animal;

15 c) generating a first control signal corresponding to said stimulation level code; and

d) outputting said control signal to produce a signal having a voltage corresponding to said stimulation level code.

15. The method of Claim 14 further including verifying said coded signal
20 from said identification code.

16. The apparatus of Claim 14 further including:

e) determining whether a beep is to be generated to stimulate the animal;
and

f) generating a second control signal for operating a sound generating device;

17. A method for training an animal in which audible and variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation
5 level code;

b) determining whether an electrical stimulation is requested by said coded signal;

c) producing said audible stimulation if requested; and

d) producing an electrical stimulation signal applied to the animal if
10 requested, said electrical stimulation having a voltage level corresponding to said stimulation level code.

18. The method of Claim 17 further including verifying said coded signal from said identification code.

19. The method of Claim 17 further including the steps of:

d) determining whether an audible stimulation is requested by said coded
15 signal; and

e) producing said audible stimulation if requested.

20. The method of Claim 17 wherein said step of producing said electrical stimulation includes:

determining said voltage level corresponding to said stimulation level code;

generating an input pulse stream having a fixed pulse width, a fixed
frequency, and a pulse voltage equal to said voltage level; and

producing a stimulation pulse stream from said input pulse stream.

21. A method for training an animal in which audible and variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation
5 level code;

b) determining whether an electrical stimulation is requested; and

c) if said electrical stimulation is requested:

c1) determining a voltage level corresponding to said stimulation level
code;

10 c2) generating an input pulse stream having a fixed pulse width, a fixed frequency, and a pulse voltage equal to said voltage level;

c3) applying said input pulse stream to an output pulse generator;

c4) generating an output pulse stream from said input pulse stream;
and

15 c4) making said output pulse stream available to the animal.

22. The method of Claim 21 further including the steps of:

d) determining whether an audible stimulation is requested; and

e) producing said audible stimulation if requested; and

23. The method of Claim 21 further including a step of verifying said
20 coded signal from said identification code.

24. The method of Claim 21 wherein said coded signal includes a stimulation type code.

25. A method for training an animal in which audible and variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring a receiver for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a
5 stimulation level code;

b) if an electrical stimulation is requested by said coded signal:

b1) determining a voltage level corresponding to said stimulation level code;

b2) applying to a switch an input pulse stream having a fixed pulse
10 width, a fixed frequency, and a pulse voltage equal to said voltage level;

b3) switching a transformer to generate an output pulse stream from said input pulse stream; and

b4) making said output pulse stream available to the animal.

26. The method of Claim 25 further including the step of:

c) controlling an audible device if an audible stimulation is requested by said
15 coded signal.

27. The method of Claim 25 wherein said coded signal includes a stimulation type code.

28. The method of Claim 25 further including a step of verifying said
20 coded signal from said identification code.